

# **The Role of Religious Coping in Alzheimer's Disease Caregiving**

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## **Statement of the Research Problem**

Alzheimer's Disease (AD) and other dementias are one of the most critical public health problems in elderly populations. AD is the most common form of dementia disorder among older persons. In the United States, more than 5 million Americans are estimated to have AD (Alzheimer's Association, 2006). By the mid 21<sup>st</sup> century, that number is expected to increase to 14.3 million (Diagnostic Center for Alzheimer's Disease, 2006). With an estimated cost of exceeding \$100 billion per year, AD is the third most costly disease in the U.S., after heart disease and cancer (Alzheimer's Drug Discovery Foundation, 2005). The prevalence, cost and suffering that result from AD will increase dramatically over the next forty years unless the cause and a cure are found.

Family members often assume the role of primary caregivers. Provision of care to those with AD is influenced by the progressive nature of the disorder, the increase in the average life span of adults, and the cost of health and nursing home care for older adults. More than 70 percent of people with AD live at home (Dippel, 1996). Among these individuals, the majority of those with AD remain at home until the last and most severe stages of the disease. The average lifetime cost of caring for someone with AD and related disorder is close to \$200,000 (Ernst & Hay, 2003). Neither Medicare nor private health insurance covers the long-term care most people with AD need. Nursing home care is very expensive, ranging from \$40,000 to \$70,000 a year (Dippel, 1996).

Caring for people with AD or other related dementia has been recognized as a source of burden on caregivers (Zarit, Reever, & Bach-Peterson, 1980). Several studies have documented the negative effects on the health and well-being of caregivers and their families (Anthony-Bergstone, Zarit, & Gatz, 1988; Kiecolt-Glaser et al., 1991; Schulz et al, 1995). Whereas the financial, emotional and physical costs of the disease for the caregiver are enormous, support for the caregiver becomes more important. One aspect of caregiver support, however, religious coping and well-being in caregivers of AD has

been relatively unexplored. Religion may help alleviate the impact of caregiving burden/stress (Picot, Debann, Namazi, & Wykle, 1997; Chadiha & Fisher, 2003). Religiosity has been associated with active and effective coping with problems and crises, such as a terminal illness (Pargament, 1997; Tix and Frazier, 1998). Religiosity also has been associated with improved mental health in people under stress (Smith & McCullough, 2003). Literature suggests that African Americans are more likely to use religious coping to help reduce the negative impacts of providing care (Picot et al., 1997; Chadiha & Fisher, 2003). Studies found that African American caregivers perceive less subjective burden and greater caregiving satisfaction than Caucasians (Lawton, et al., 1992).

## **Research Background and Hypotheses**

This study examined the role of religion as a source of support and a means of coping among those individuals providing care to victims of Alzheimer's disease (AD). This study used an adaptation of the stress and coping model of Lazarus & Folkman (1984) to examine religious coping, burden and depression. This model provides a useful tool for identifying individual differences in caregiving experience. It helps us understand why some caregivers are better able than others to adapt to the caregiving situation. Based on this model, it is not the negative event per se that determines how well one will adapt, but rather the appraisal of both the event and one's ability to meet the demands. The appraisals are affected by the resources available to the caregiver. In this study, religion is viewed as a resource that acts to reduce the adverse effects of stress. Studies illustrate that the way in which caregivers interpret their situation may be more consequential than objective characterizations of that situation. Haley, Levine, Brown, and Bartolucci (1987) first applied this framework to caregivers. They reported that caregivers' subjective appraisals of the severity of their caregiving problems were better predictors of depression than were objective measures of the severity of their caregiving problems.

The purpose of the current study was to provide a better understanding of the role of religious coping and underlying structures in the relationships between religious coping, burden and depression in AD caregiving by analyzing baseline data from Enhancing Alzheimer's Caregiver Health (REACH) II study. It tested a theoretical path model in which burden is a mediator of the effect of religious coping on depression. It examined which aspects of religion have more significant impacts on caregiver's well-being by looking at two separate measures of religion (religious behaviors, religious coping). In the current study, acts of religious coping were defined as positive coping – seeking spiritual connection, support and collaboration with God in problem solving. It also explored the moderation effect of race. Understanding the role of religious coping may inform us about intervention and mental health service delivery. This study's

hypotheses were evaluated controlling for caregiver's physical health. This study has the following three specific aims and hypotheses:

- 1) Examine the relationship between religious coping and depression. It is hypothesized that caregivers who have higher levels of religious coping will have lower levels of depression;
- 2) Test the mediation of burden in the relationship between religious coping and depression. It is hypothesized that religious coping will lower burden and burden will lower depression;
- 3) Explore the moderating effect of race in the relationship between religious coping and depression. It is expected that the effects of religious coping on depression will be different for African American, White and Hispanic caregivers.

## Methodology

Participants (N = 642) for this study came from the Resources for Enhancing Alzheimer's Caregiver Health (REACH) II study. Study participants are caregiver-care recipient dyads who meet the inclusion and exclusion criteria. In the current study, only baseline assessment data (Time 1) were used for analysis, because there is a larger N than the follow up data (Time 2) and the follow up data would be affected by the intervention. The majority (82%) of the respondents are female, the age of the caregivers range from 24 to 89 (M= 61.04, SD= 12.99). The respondents consist of 211 African-American, 220 Caucasian and 211 Hispanic. For the purpose of comparison among African-American, Caucasian and Hispanic caregivers, all of the analyses included in this study use only African-American, Caucasian and Hispanic respondents; six caregivers were excluded in the analyses because they did not belong to any of three main racial groups.

This study examined the relationship between religious coping, burden, depression and race among from REACH II study by utilizing Structural Equation Modeling for testing the path models. REACH II was a multisite randomized clinical trial, funded by the National Institutes on Aging (NIA) and the National Institutes of Nursing Research (NINR) that tested the efficacy of a multicomponent social/behavioral intervention for caregivers of persons with Alzheimer's disease. Multi-sample SEM (MSEM) was used for a test of moderating effect of race. Measures included two types of religious behavioral practice (religious attendance, prayer/meditation), religious coping, a potential mediator (burden) between religious coping and depression, and outcome (depression). Religious coping was assessed by the Brief RCOPE (Pargament et al., 1998), a 3-item questionnaire, assessed the use of religious coping. Religious coping consisted of 3 items that measured seeking spiritual support, seeking a spiritual connection, collaboration with God in problem solving. Caregiver burden was measured by the brief (12-item) version of the Zarit Caregiver Burden Interview (Zarit et al., 1985,

Bedard et al, 2001). Caregiver depressive symptoms were assessed by using the Center for Epidemiological Studies-Depression (CES-D) scale (Radloff, 1977).

The hypothesized path model composed of study variables was evaluated using structural equation modeling (SEM). EQS 6.1 for Windows software (Bentler, 2004) was used to analyze the hypothesized relationships. Four steps of analysis were performed. First, preliminary analysis of important demographic variables was performed to determine which variables should be included in the model. Second, model specification was conducted based on theoretical considerations. Third, the specific tests for the significance of each path in the model were conducted. Fourth, the exploratory moderation tests for the difference among race groups were examined.

## Results

The analyses were completed for associations between and among religious attendance, prayer/meditation, religious coping, burden and depression. The results of test of mean difference showed that racial differences for almost all of the variables were significant at  $p < .05$  except gender and depression. Hispanic respondents differed from Black and Whites in that they were slightly older and had less formal education. Hispanics also reported the lowest level of average household income and Whites reported the highest level of household income of the three groups. Whites reported the lowest level of religious coping and highest level of caregiver burden, whereas Blacks indicated the highest level of religious coping and lowest level of caregiver burden of the group.

The results of bivariate correlation revealed that religious attendance was associated with more practice of prayer/ meditation ( $r = .38, p < .01$ ) and higher level of religious coping ( $r = .47, p < .01$ ). Prayer/meditation was positively correlated with religious coping ( $r = .71, p < .01$ ). Consistent with the hypotheses, religious coping was associated with lower burden ( $r = -.18, p < .01$ ) and lower depression ( $r = -.23, p < .01$ ). Religious attendance was also associated with lower burden ( $r = -.12, p < .01$ ), and lower depression ( $r = -.26, p < .01$ ). Religious variables show a higher negative correlation with depression than burden. Burden was highly correlated with depression ( $r = .59, p < .01$ ). Better physical health was marginally related to more practice of prayer/meditation

( $r = .09, p < .05$ ). Physical health was correlated with lower burden ( $r = -.19, p < .01$ ) and less depression ( $r = -.35, p < .01$ ).

Given that the data departed from normality (Mardia's Coefficient = 6.07), robust statistics were reported for the relationships among the hypothesized relationships to correct for non-normal data (Satorra, & Bentler, 1994). The preliminary analysis showed that only physical health was significantly associated with depression. Consequently, it was included as a predictor in all model tests. The structural equation analysis (EQS)

was run on all hypothesized paths. Modification indices (Lagrange multiplier test) indicated a direct path from religious attendance to depression; this path was added to the model. Non-significant paths from physical health to religious attendance and physical health to prayer/meditation were removed. Reestimation of the model results in an improved fitting model,  $\chi^2(5, N = 642) = 11.68$ , CFI = .99, RMSEA = .05,  $p = .04$ . The model explained 55% of the variance in religious coping and 45% of the variance in depression.

Religious coping was a negative predictor of depression ( $\beta = -.19$ ,  $z = -4.89$ ,  $p < .001$ ) and this was a significant path, suggesting that as caregivers' level of religious coping increases, their level of depression decreases. The data also showed that there was a significant relationship between burden and depression ( $\beta = .51$ ,  $z = 16.42$ ,  $p < .001$ ). Caregiver burden partially mediated the effect of religious coping on depression with higher religious coping resulting in lowering caregiver burden and thereby reducing depression. The only path that was not predicted and had to be added to the model was between religious attendance and depression. The moderating effect of race was tested using MSEM. Multi-sample SEM (MSEM) is to test for differences on the parameters of a model among multiple samples. While the overall MSEM test was not significant, separate analyses showed some variations in relationships among groups (Figure 1). The religious coping model was better supported by African-Americans than Hispanic and White caregivers.

## Utility for Social Work Practice

The current study has several significant implications for social work practice, service delivery, and policy. First, it is important for social workers to ask caregivers if and how they use religion to help them to cope. Simply acknowledging and respecting caregivers' religious belief can be very helpful. Social workers could identify and support caregivers' religious involvement. Social workers could ask caregivers about religious practices (e.g. scripture reading, prayer) that have been meaningful to them and discuss how they may be relevant to their ability to cope with the stress of caregiving. It may also be useful to refer caregivers to a pastoral counselor or chaplain who will be sensitive to the caregiver's religious background.

The findings suggest that religiosity plays an important role in decreasing caregiver burden and thereby decreasing depression. The findings also suggest that it may be appropriate for social workers to encourage particularly African-American caregivers to utilize religious coping resources. It is also important for agencies or hospitals to provide services and training for caregivers that include the components of religiosity and its impact on the caregivers' perception of burden and depression. Spiritual/religious issues could be sensitively addressed in existing programs. Such training will help

caregivers to be aware of their own religious beliefs and cope with difficult situations in caregiving. Policy makers could advocate for improving caregiver support by providing faith-based programs/interventions.

Future research will need to incorporate the important issues of religious coping that influence caregiving outcomes for families dealing with AD. Future research might compare motivation for caregiving, coping processes and spiritual/ religious perspective of different racial groups. Qualitative research could provide a deeper understanding of how racially diverse group of caregivers use religion to cope with caregiving burden differently. Greater understanding of religious coping and its role in the caregiving process helps researchers discover better ways to assist racially diverse caregivers in dealing with burdens of AD caregiving. Moreover, given existing health disparities and physical health problems among minorities, programs for caregivers not only have to focus on psychological well-being and reducing depression, but also create interventions to improve the physical health of caregivers (Pinquart & Sorensen, 2005).

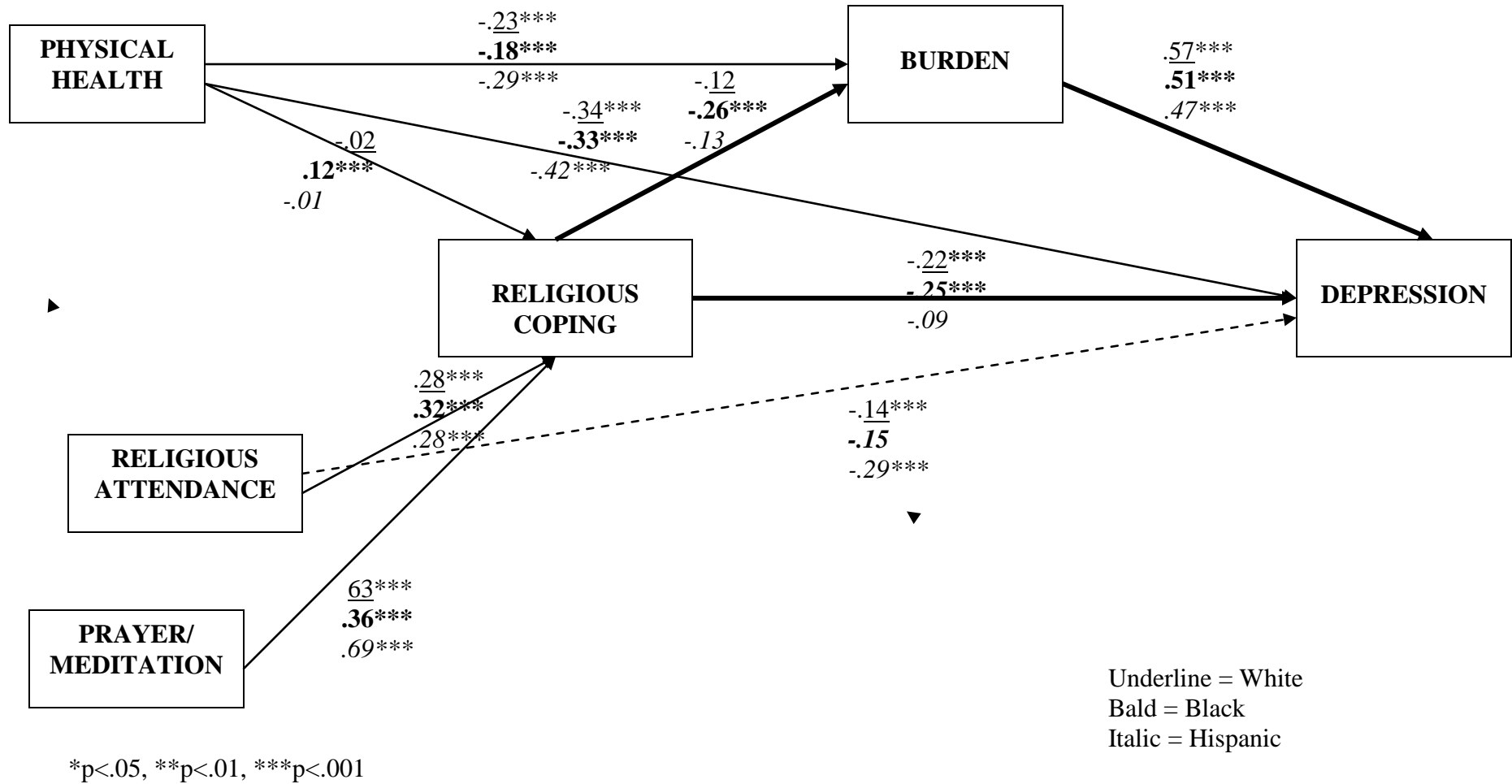


Figure 1. The Final Path Model of Relationships with Standardized Coefficients by race

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